UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Ex parte ANTHONY D. SULLIVAN

Appeal No. 2000-0190
Application No. 08/784,224

ON BRIEF

MAILED

SEP 2 4 2002

PAT. & T.M. OFFICE
BOARD OF PATENT APPEALS
AND INTERFERENCES

Before THOMAS, FLEMING, and DIXON, **Administrative Patent Judges**.

DIXON, **Administrative Patent Judge**.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 1-28,

which are all of the claims pending in this application.

We AFFIRM-IN-PART.

BACKGROUND

Appellant's invention relates to a knowledge management system and method.

An understanding of the invention can be derived from a reading of exemplary claim 1,

which is reproduced below.

1.   A computer-based knowledge management system, comprising:

a client operable to generate a first request, the client associated with a knowledge worker;

a server coupled to the client and operable to receive the first request, the server comprising a knowledge matrix operable to store status information on a plurality of knowledge items associated with the first request, the server operable to generate a second request for the knowledge items if the status information stored in the knowledge matrix indicates the availability of the knowledge items; and

an information source operable, in response to the second request, to communicate information to the server to satisfy the first request.

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

Graves et al. (Graves)	5,410,344	Apr. 25, 1995
Barritz	5,499,340	Mar. 12, 1996
Srinivasan	5,548,506	Aug. 20, 1996
Oku et al. (Oku)	5,675,745	Oct. 07, 1997
		(Filed Feb. 08, 1996)

Claims 1-7, 11-14, and 19-22 stand rejected under 35 U.S.C. § 103 as being unpatentable over Oku. Claims 8, 18, and 23 stand rejected under 35 U.S.C. § 103 as being unpatentable over Oku in view of Srinivasan. Claims 9, 15, 17, 24, and 26-28 stand rejected under 35 U.S.C. § 103 as being unpatentable over Oku in view of Srinivasan further in view of Barritz. Claims 10, 16, and 25 stand rejected under 35 U.S.C. § 103 as being unpatentable over Oku in view of Srinivasan further in view of Graves.

Rather than reiterate the conflicting viewpoints advanced by the examiner and appellant regarding the above-noted rejections, we make reference to the examiner's answer (Paper No. 11, mailed Mar. 25, 1999) for the examiner's reasoning in support of the rejections, and to appellant's brief (Paper No. 10, filed Feb. 16, 1999) and reply brief (Paper No. 12, filed Jun. 3, 1999) for appellant's arguments thereagainst.

OPINION

In reaching our decision in this appeal, we have given careful consideration to appellant's specification and claims, to the applied prior art references, and to the respective positions articulated by appellant and the examiner. As a consequence of our review, we make the determinations which follow.

At the outset, we note that appellant has indicated at page 5 of the brief that the claims do not stand or fall together; however, we note that appellant has not addressed each claim separately in the brief. The examiner indicated this to appellant in the answer at page 2 and appellant traversed the examiner's position in the reply at page 2. Therefore, we will address the claims as they have been specifically argued in the brief. Claims not separately argued will be grouped with their respective parent claims.

With respect to independent claim 1, the examiner maintains that the client and the server interact to perform searches on databases. The server receives a request

3

from the client and the server generates a second request to the information source/database. (See answer at pages 3-4.) The examiner further maintains that it is old and well known to use one or more indices in a database management system to efficiently query and search databases. The examiner takes Official Notice of this knowledge/fact. (See answer at page 4.) The examiner therefore concludes that it would have been obvious to one of ordinary skill in the art at the time of the invention to search databases using these indices or knowledge matrices in order to ascertain if the information sought was located in the database. (See answer at page 4.)

Appellant argues that Oku does not disclose a "knowledge matrix" and that Oku is limited to "performing pedestrian query and retrieve functions upon databases constructed by a 'data modeling technique.'" (See brief at page 6.) Appellant further argues that the examiner concocts the rejection using the Official Notice and conclusion regarding searching without any support for his conclusion. (See brief at pages 6-7.) We disagree with appellant. We find that the examiner has provided a logical analysis of how data may be searched in a database. First, the indices would be searched to see if the desired data is present in the database. If present/available in the database then the location would have to be determined. Once the location of the desired data is determined, the data may be retrieved. In a large database system, this may involve

many drive mechanisms, tape mechanisms and tape pickers, etc. to make the data

available to be retrieved. Therefore, we find the examiner's line of reasoning to be

sound and well supported within the context of a database retrieval system. Therefore,

we disagree with appellant's argument. Additionally, we find no detail or definition of

what the "status" information is in the context of the express claim language.

Therefore, we agree with the examiner that availability or presence of data would have

been a type of status information. Additionally, we note that on page 3 of appellant's

specification, appellant states that "knowledge matrix also stores status information on

the identified knowledge items to determined whether the identified knowledge items

are current, in existence, available, or otherwise in the proper form or status to satisfy

the knowledge worker's request." From our understanding of this range of scope of

"status information," the examiner's reasoning concerning availability or presence of

information is the same as one of appellant's alternative interpretations.

According to the Second Edition of the Microsoft Press Computer Dictionary

(Copyright 1994) at page 208, "index" is defined as

> Generally, a listing of key words and associated data that point to the location of more comprehensive information. A directory index locates files and records on a disk. A record index describes the location of key fields.
>
> In programming, a scalar value that allows direct access into a multielement data structure such as an array. The index allows the programmer to calculate or otherwise derive the location of the desired

5

element, eliminating the need for a "brute-force" sequential search
through the collection of elements. See also array, element, hashing, list.

Additionally, an "indexed search" is defined as "[a] search for data im memory or on a

storage device that uses an index (a list of data item and their locations) to decrease

the amount of time it takes to find a particular data item."

Clearly, the examiner has a reasonable basis for his position relative to the use

of indexes or indices used in databases and with searches of the databases and the

basic process to retrieve information.

The examiner has identified column 21 of Oku as a basis for his position

concerning the searching of the database which states:

> FIG. 42 is a schematic functional block diagram showing the general
> concept of the organization activity management system of the invention.
> In FIG. 42, reference numeral 10 denotes server environment, mainly
> comprising database functions such as event database (DB) 11 dealing
> with events, document database (DB) 12 dealing with documents, and
> process database (DB) 13 dealing with process (schedule), and existing
> RDB 14. The event database 11, document database 12, and process
> database 13 are composed of the OODB constructed by the data
> modeling technique of the invention.
>
> Reference numeral 20 represent client environments, which may be used
> mainly when the operator searches the event database 11, document
> database 12, and process database 13. For example, when the operator
>
> wants to see the information about the personnel, by entering a word
> expressing the concept of any stratum relating to the person out of the
> basic concepts of person, organization, article, document, meeting and
> event, and actions from the client environments 20 side, the server
> environment 10 can be accessed and searched, so that a personnel

6

viewer (personal retrieval function) 21 functions. Similarly, by entering a
word expressing the concept of any stratum relating to documents from
the client environments 20 side, a document viewer (document retrieval
function) 22 functions, and by entering a word expressing the function of
any stratum relating to the work from the client environments 20 side, a
work viewer (work retrieval function) 23 functions, and thus various
retrieval functions are provided. That is, the client environments 20 are
composed so that the database functions may be retrieved by using the
lower concepts of the seven basic concepts of person, organization,
article, document, meeting and event, and actions as retrieval keys. (Col.
20, line 61-col. 21, line 26)

We agree with the examiner that Oku teaches the basic interaction between a client

and server to search a database at the server.

Appellant argues that the examiner "oversimplies the inventive concepts" of

appellant's invention. (See brief at page 7.) We disagree with appellant; rather we find

that the language of appellant's claimed invention is quite broad. Appellant argues that

Oku fails to teach the knowledge matrix to store status information. (See brief at page

8.) The examiner maintains that the indices would show what information is available

and where it is located. We agree with the examiner.

Appellant disputes the examiner's position with respect to indices and requests

specific references to support the examiner position. Additionally, appellant argues that

the examiner has relied upon hindsight to reconstruct appellant's claimed invention.

(See reply brief at page 4.) While we agree with the examiner's position, we include the

7

above definitions to further evidence the use of indices, and we disagree with appellant

that the examiner has relied upon improper hindsight in reconstructing the claimed

invention.

Appellant argues that the examiner fails to appreciate the difference between an

index that identifies existing information as compared with status information that

indicates the availability of knowledge items. (See reply brief at page 4.) We disagree

with appellant, whereas if an item exists, then it would be available and that status

would be conveyed. Additionally, with respect to the accessing of the information the

location information would convey a status as to availability as discussed above.

Therefore, this argument is not persuasive.

Appellant argues that Oku does not disclose generating a request for knowledge

items if the status information indicates availability. (See brief at page 8.) We disagree

with appellant. Oku teaches that the client requests to the server and the server

submits a request for the search.

Appellant argues that Oku teaches away from using databases in its organization

activity management other than those constructed by the data modeling technique.

(See brief at page 8.) We disagree with appellant since appellant's argument does not

address the examiner's arguments. " 'A reference may be said to teach away when a

person of ordinary skill, upon [examining] the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant.' **In re Gurley**, 27 F.3d 551, 553, 31 USPQ2d 1130, 1131 (Fed. Cir. 1994)." (Brackets in original.) **Para-Ordnance Mfg. v. SGS Importers Int'1**, 73 F.3d 1085, 1090, 37 USPQ2d 1237, 1241 (Fed. Cir. 1995), cert. denied, 117 S. Ct. 80 (1996). The examiner maintains that Oku does not teach away from using other data structures, but is merely recommending a method used to construct one type of database used in the system. (See answer at page 11.) We agree with the examiner. Appellant argues that modifying the data structure of Oku would destroy the significant purpose of Oku and therefore teaches away from using other types of data structures. (See brief at page 9.) We disagree with appellant as discussed above. Therefore, this argument is not persuasive.

Appellant argues that the examiner's reliance upon the "work progress table," answer at page 11, in the response to arguments is misplaced. We agree with appellant's argument, at page 5 of the reply brief, but this does not change our finding concerning the use of indices and searching databases, as discussed above. Since appellant has not adequately rebutted the examiner's *prima facie* case of obviousness of the claimed invention, we will not sustain the rejection of independent claim 1 and

?

independent claims 11 and 19 and dependent claims 2, 3, 6, 7, 12, and 22 which

appellant indicated as being grouped with independent claim 1. (See reply brief at

page 3.)

With respect to dependent claims 4, 13, and 20, appellant argues that the claims

require identification of a plurality of needs of the knowledge worker and that the

examiner has not identified a basis in Oku to support his rejection of the claims. (See

brief at page 10.) We agree with appellant that the examiner has not established a

prima facie case for a knowledge worker grid operable to identify a plurality of needs

associated with the knowledge worker, a process grid operable to identify a process

item associated with the selected need, and a data grid operable to identify a data item

associated with the selected need. The examiner maintains that Oku infers that the

needs, process items, data items , etc. are associated or cross-referenced with each

other and view the present state of a task as status information. (See answer at page

11.) We disagree with the examiner that the teachings of Oku teach, infer or clearly

suggest the invention as claimed with respect to the claimed grids. Therefore, we will

not sustain the rejection of dependent claims 4, 13, and 20.

With respect to dependent claims 5, 14, and 21, appellant relies upon the same

argument as above. Again, we do not find that the examiner has established a *prima*

10

facie case of obviousness, and we will not sustain the rejection of dependent claims 5, 14, and 21.

With respect to dependent claims 8, 18, and 23, the examiner relies upon the teachings of Srinivasan with respect to the use of passwords and authorization levels. The examiner provides a discussion of the teachings of Srinivasan at pages 6, 7, and 12 of the answer. We agree with the examiner's position and the combination of the references. Appellant argues that the combination of does not teach or suggest the "personal profile . . . that specifies the knowledge worker and a selected knowledge worker view" and "a default profile associated with a corresponding knowledge workers' view." (See brief at page 11.) The examiner maintains that different people using a system would have different levels and types of access to the system and the data processes thereon. (See answer at page 12.) We agree with the examiner, and we find no difference between the knowledge worker views recited in the claims and various levels of access. Appellant's specification discussses knowledge worker views at pages 19 et seq., but does not specifically detail or define the term "knowledge worker view". Therefore, we find the examiner's line of reasoning convincing as to having different levels of authorization for different classes and types of employees and the use of both personal and default profiles. Therefore, appellant's argument concerning "views" is not persuasive.

With respect to dependent claims 9, 15, and 24, the examiner relies upon the

teachings of Barritz to teach the use of monitoring access (See answer at pages 7, 8

and 13.) At page 13 the examiner additionally maintains that it was well-known in the

computer art to track usage statistics for the purpose of billing, resource allocation,

maintanence scheduling, etc. Additionally, the examiner notes that the search engine

for database searching would have been an executable program as is taught by Barritz.

We agree with the examiner that it would have been obvious to one of ordinary skill in

the art at the time of the invention to have generated access statistics for at least

tracking and billing. Here, we find no express limitations in dependent claim 9 which

details what type of access or statistics are being maintained. Therefore, we find that

the base combination of Oku and Srinivasan would have suggested generating access

statistics in response to interaction between the client and server as detailed by the

examiner. Therefore, we find the teachings of Barritz to be cummulative of monitoring

which would take place in the base combination of Oku and Srinivasan. Appellant

argues that Barritz teaches only monitoring executable files and would be inoperable to

generate access statistics as recited in the claims. (See brief at page 12.) We

disagree with appellant. The examiner maintains that the searching of the databases

would have been an executable file to be tracked. (See answer at page 13.) We agree

with the examiner that the search engine(s) would have been executable files.

Additionally, we agree with the examiner that it would have been obvious to one of

ordinary skill in the art at the time of the invention to monitor access to nonexecutable

files if this was a major activity such as in a database searching system as taught by

Oku. Therefore, appellant's argument is not persuasive, and we will sustain the

rejection of dependent claims 9, 15, and 24.

With respect to dependent claims 17 and 26-28, appellant argues that Oku

discloses "depending matters" rather than "pending" matters. We agree with appellant

that there is an inconsistency in the teachings of Oku. Appellant argues that the

reminder function of Srinivasan fails to teach or suggest a "pending module" or a

"pending queue" as recited in appellant's claims. (See brief at page 13.) We disagree

with appellant. We find no language in claim 17 that details the function of the pending

module or pending queue beyond identifying the unavailable knowledge item and

storing information on the unavailable knowledge item. The examiner maintains that

the remind module for pending tasks of Srinivasan in combination with the tracking

system of Barritz would have suggested to skilled artisans to monitor queries also. We

find that we need not reach the examiner's level of detail in the rejection since the

claims do not recite what is pending. With this said we do agree with the examiner

concerning the automatic reminders for uncompleted tasks as taught by Srinivasan as

being pending matter and keeping track of them in a queue.

13

Appellant argues that Barritz teaches away from monitoring non-executable files. (See brief at page 13.) We disagree with appellant as discussed above. Since appellant has not adequately rebutted the examiner *prima facie* case of obviousness, we will sustain the rejection of dependent claims 17 and 26-28 which appellant have grouped together. (See reply brief at page 3.)

With respect to dependent claims 10, 16, and 25, appellant argues that the examiner's combination does not teach or suggest the use of a watch module that modifies a personal profile in response to access statistics. (See brief at page 13.) We agree with appellant. While the examiner adds the teachings of Graves to the combination, we find no teaching of a module to carry out the modifying in response to the access statistics. The examiner maintains that it would have been obvious to one of ordinary skill in the art at the time of the invention to use statistics in place of soliciting data from a user to modify a preference profile. While we do not disagree with the examiner, the examiner has not provided a teaching or suggestion for having a module or step to carry out the modifying in response to the access statistics. The language of claim 10 requires more that just modifying a profile and using statistics, the modification must be in response to the statistics. The examiner has not addressed the "in response to" portion of the claim limitation. Therefore, we will not sustain the examiner's rejection of claims 10, 16, and 25.

Appeal No. 2000-0190
Application No. 08/784,224

CONCLUSION

To summarize, the decision of the examiner to reject claims 1-3, 6-9, 11, 12, 15, 17-19, 22-24 and 26-28 under 35 U.S.C. § 103 is affirmed and the decision of the examiner to reject claims 4, 5, 10, 13, 14, 16, 20, 21, and 25 under 35 U.S.C. § 103 is reversed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED-IN-PART

JAMES D. THOMAS
Administrative Patent Judge

)
)
)
)
)
)

MICHAEL R. FLEMING
Administrative Patent Judge

) BOARD OF PATENT
)   APPEALS
)   AND
) INTERFERENCES

JOSEPH L. DIXON
Administrative Patent Judge

)
)
)
)
)
)

jld/vsh

15

L. JOY GRIEBENOW
ELECTRONIC DATA SYSTEMS CORPORATION
5400 LEGACY DRIVE
H3-3A-05
PLANO, TX 75024